been presented. It has been demonstrated that the people of Guinhangdan show a good deal of variation in these three features which may be considered indices to socio-economic status. On the basis of this data it is possible to postulate the existence of three social classes in Guinhangdan: a lower class, a middle class, and an upper class. The lower and the upper class are most clearly defined and the middle grouping is the largest and most amorphous in form and composition. Definitely in the lower class are the 89 fishermen, laborers, and nipa sewers and sellers of whom only 2 households have an income of more than P61.00 a month. Definitely in the upper class are the 24 teachers, clerks, and pensioned personnel of whom only two households have an income less than P61.00 a month. Furthermore, among the fishermen, laborers, and nipa sellers or sewers only 21 own land and of these 14 are nipa sewers and of the 14, eleven have holdings of a hectare and a half or under. In contrast only one of the teachers, clerks and pensioned personnel does not own land. While cash income and land ownership do not describe class differences in any detail, they are a quickly read and easily grasped indication of wide and pervasive differences in opportunity and advantage of the way of life of a given family or a given group.

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MALOCO: A REPRESENTATIVE AKLAN BARRIO*

ROBERT HUKE, Ph.D.

In many ways Maloco is typical of any one of hundreds of barrios in the area of the Western Visayan Islands. It is laid out in a grid pattern with streets intersecting at right angles. None of the streets are paved and transportation becomes somewhat difficult during the rainy season. A barrio road leading east toward the Ibajay River connects with a municipal road leading to the poblacion. Jeep service is available along these roads at very irregular times and on market day busses connect Maloco with the surrounding barrios and with the poblacion.

In the center of the barrio is the traditional plaza with a chapel boasting of a corrugated iron roof. The plaza in front of the chapel has a basketball court of concrete, a reading center and a few stalls used by vendors on market day and as a gathering point for the young men of the village every evening. The basketball court finds most use as a dance pavilion and a playground for the very young children as there is no one in Maloco who owns a basketball. The six sari-sari stores and two carpenter shops in the barrio all face the plaza, thus emphasizing its importance as a focus of social activity within Maloco. On a low hill at the southern edge of the village a new two building elementary school has been built.

Maloco is the largest of 32 barrios of Ibajay Municipality in the Aklan section of Capiz Province. According to the 1948 census, the entire municipality had a population of 24,086, and of this number 2,026 lived in Maloco barrio while only 1,935 people lived in the poblacion. Apparently the barrio has been growing slowly but somewhat more rapidly than the municipality as a whole. The Census of 1918 reports the municipality as having 17,542 people while the barrio of Maloco had 1,376. In the 30 year period between 1918 and 1948 the poblacion actually declined in population by 229 from its 1918 total of 2,164.

Both in 1918 and in 1956 the sex ratio, the number of males per hundred females, was very low. In both years the number of females exceeded the number of males by about 20%. Many married women with families, but with no husband resident in the village, were interviewed. It was found that the husbands were working in two different parts of the country. In about half of such cases the husbands had gone to Mindanao to work on new land and planned to send for the family as soon as the new farm was well established and a home was built. In the other half of the cases the husband had gone to Manila to find work. Generally the husbands in Manila did not plan to send for the family, but instead sent small sums of cash home at uneven intervals and usually visited Maloco

^{*}The observations expressed in this report are the result of two weeks spent in and around Maloco during April, 1956. Comparisons with the land use practices in other parts of Asia are also the results of field experience in Burma, India and Japan.

¹ Census of the Philippines, 1948, Population, Part II, Bureau of Printing, Manila, 1954, Table 1.

² Consus of the Philippinas: 1918, Volume Two, Bureau of Printing, Manila, 1921, p. 146.

for a short period once or twice a year. In almost all cases where the father was away from home the money that he sent to the family was far from enough to live on. Without exception the mothers did some kind of work such as sewing or running a sari-sari store.

Maloco has the same apparent problem of too little land to give the people an acceptable level of income, shared by thousands of other barrios, not only in the western Visayas but in almost all parts of the Philippines with the possible exception of Mindanao and Palawan. People in Maloco feel that theirs is an unhappy lot and that the only solution lies in acquiring more land and practicing the same type of land use on a larger scale. This, they feel, would give them a higher level of living and help them to achieve many of their objectives in life. This attitude of wanting to acquire a larger piece of land to use in the same faulty, inefficient manner is a characteristic desire in many parts of the world. Larger landholdings would not necessarily mean a higher level of living and, conversely, a small land holding need not mean a low level of living. Land use practices in Maloco, despite the long hours of labor put in by the farm families are wasteful to the extreme.

Physical Background

The Aklan section of Capiz comprises a relatively narrow coastal plain backed up by low but steeply sloping hills which extend inland to the rugged mountains found along the Antique border. This belt of hills is bisected by several streams and associated with these streams are valleys of varying sizes extending the level and cultivable land inland for several kilometers. The second largest of these streams, the Ibajay River, and the broadcast extent of level land extending inland from the coast reaches south from Ibajay. Maloco is located near the western side of this valley about six kilometers inland from the poblacion. To the east of the barrio level paddy land extends unbroken for a distance of about three kilometers. A small tributary stream leading to the Ibajay River flows from southwest to northeast through the outskirts of the barrio and small areas of level land are found on both sides of this stream to the south of the barrio. Away from this small stream paddy land is replaced by low, rolling hills and level land is very much restricted west northwest and southwest of the barrio.

This east-west topographic difference in Maloco barrio appears to be closely associated with the major soil types found in the barrio area. The somewhat rolling area to the west of the settlement is covered with Alimodian clay loam while the more level areas to the east have a soil type known as San Manuel clay loam. These soils are similar in that they both have a high content of clay in the surface layer, and the B horizon of each is made up of silty clay loams which at lower levels grades into sandy loam. In both soils the structure is medium to fine granular. The basic difference in the two types is that the San Manuel soils on the level areas are deeper and have a higher water holding capacity than do the Alimodian soils. Three samples of these soils tested for the author by the Bureau of Soil Conservation showed the following chemical analysis.

Available constituents in Parts/million, Maloco	Constituents of "high yielding" soils	
Ammonia	10	Total 10-5
Nitrates	2	nitrogen
Phosphorous	8	
Potassium		100-150
Calcium	4500	20 00-6000
Magnesium	510	
Manganese		tiaee

The Bureau of Soil Conservation analysis of samples of this soil recommends that it be fertilized as it is deficient in several necessary minerals. For lowland rice, corn, or legumes the recommended fertilizers are 300 kilograms per hectare of both superphosphate and muriate potash. In addition to this, ammonium sulphate should be added; for lowland rice at the rate of 200 kilograms per hectare; for corn at the rate of 300 kilo per hectare; and for legumes at the rate of 100 kilos per hectare. All other factors being equal, this pattern of fertilization should give an increase of yield between 100 and 200 percent.

Maloco enjoys a climatic pattern known in the Philippines as type 3. This implies that there is no very pronounced period of maximum rainfall and that the dry season is relatively short, lasting only some three months. Rainfall data for Maloco itself are not available, but the following table shows the yearly average pattern for Balete, a town lying east of Maloco on the north coast of Panay. The total rainfall at Maloco is perhaps slightly higher than at Balete, but the pattern is similar as both places have the same relative location in terms of prevailing winds, the Sibuyan Sea and the high hills of the Antique border.

RAINFALL AT BALETE 4

months	inches of rainfall		number of	rainy days	
Jan.		10.83		22	
Feb.		4.52		18	
Mar.		8.60		20	
Apr.		5.36	*	15	• .
May		9.88		19	•
June		10.06		20	•
July		10.51		20	
Aug.		8.13		20	
Sept.	•	10.76		21	
Oct.		14.62		24	
Nov.		19.68		23	
Dec.		14.95		23	
*					
	TOTAL	127.90		245	

The maximum monthly rainfall figures for the three months of October through December are due at least in part to the fact that these typhoon months in northern Panay. The excessive rainfall from occasional typhoons adds considerably to the normally heavy rain carried by the northeast mon-

⁸Soils Map of Capis Province, Bureau of Soil Conservation, Manila, unpublished.

⁴ Annual Climatological Review: 1953, The Weather Bureau, Manila, 1954, p. 61.

soon which is strongest during these months. In many parts of the Philippines the heaviest rainfall is associated with the southeast monsoon during the months of June through September. In Maloco the rain is only moderately heavy during these months as this area lies in lee of the high hills to the southeast. Winds blowing across these hills lose much of their moisture on the Antique side, thus placing the north coast of Panay in a partial rain shadow.

With a rainfall pattern such as this it should be possible to raise two successive crops of rice in a year in the lower lying areas. In higher areas with more rapid drainage, a crop of rice could well be preceded or followed by a stand of corn. In parts of Burma where the rainfall pattern is similar, it has been found profitable to plant three crops a year on the same field. Palay is the main crop planted during the period of maximum rainfall. This is preceded by a crop of sesamum, useful for the high oil yield of its seeds, and followed by a crop of grain, a drought resistant crop grown during the dry months. A similar pattern of crop succession might well succeed at Maloco.

The landforms, soils and climatic patterns at Maloco are relatively favorable to farming. Now let us look at the patterns of land use and see if the maximum output is being obtained from the land. Data for this section of the report were gathered from field observations and from detailed interviews with 40 farm families in the barrio. These interviewed families were chosen at random and it is believed that they are a representative cross section of the barrio as a whole.

Palay is by far the main crop in Maloco and east of the settlement row upon row of diked paddy fields farmed by the people of Maloco reach out into valley of the Ibajay River for a distance of nearly a kilometer and a half. North of the barrio the banks of the tiny tributary stream are covered with groves of coconut trees. Here, one sees an occasional patch of corn or of sugar cane planted under the trees in a valuable two story crop pattern. Beyond the coconut groves is a narrow strip of paddy land which soon gives way to scrub and bamboo covered hills. South of the settlement the hills approach very close to the houses. Here the hills themselves are covered with coconut and bamboo and are surrounded by narrow rivers of paddy. The land farmed by the people of Maloco extends only a short way west of the barrio and here the crop pattern is predominately one of coconut interspersed with upland palay. During the dry season several of the diked fields east of the barrio are devoted to gardens. The crops raised include several kinds of vegetables as well as a small area of tobacco, all for home use.

The forty farmers interviewed had farms averaging only 2.4 hectares of cultivated land. Of this, an average of 1.7 hectares was planted to palay and the remaining 0.7 hectares was planted to a variety of crops of which coconut, corn and sugar were the most important in that order. Of the 40 farmers, 6 had holdings of five or more hectares. If these were omitted, the remaining 34 farmers were found to be cultivating an average of only 1.6 hectares. An additional indication of the small size of the farms is obtained by noting that the median farm size for the entire sample is only 1.5 hectares.

An average of only 0.73 hectares of land was double cropped by each farm family. This represents only 43 percent of the palay area and 30

percent of the total farm area. The second crop planted in all cases followed the main rice crop and was about equally divided between rice and corn. Generally the second palay crop was planted on the lower fields but when the second crop was corn it was found on the higher fields. In view of the preceding discussion of climate it is difficult to understand why such a *small* percentage of the farm land is double cropped. The area of double cropped farm could and should be at least doubled.

In Maloco it was found that the average farmer with 2.4 hectares of farmed land had his land divided into three separated plots sometimes as far as one kilometer apart. These three separated plots contained an average of fourteen individual diked fields, giving the average palay field a size of somewhat less than 1/8 of a hectare. With the type of palay farming practiced in the Philippines it would be difficult to eliminate the individually diked fields, but certainly the division of farms into widely separated plots is wasteful of both time and energy. If holdings could be combined into a single plot, then presumably, the time lost moving from plot could be devoted to more careful farming and an increase in yields would result. This has been found to be true in Switzerland and other areas where formerly separated holdings have been combined.

Data on yields per hectare are, at best, somewhat unreliable but the indications are that Maloco harvests palay yields which are well below the national average. In the interviews farmers were asked about their average palay yields as well as about the yields from their best and from their worst fields. Not one farmer estimated yields on his best fields to be any higher than a rate of forty cavans per hectares. From this high, estimates ran all the way down to a low of eight cavans for the poorest fields. Average as well as median yields for Maloco are between 15 and 20 cavans per hectare. With the national average yield standing at slightly over 27 cavans this indicates that yields in Maloco are extremely poor.

Four of the questions on the interview sheet concerned the use of fertilizer and help given by the government agricultural agent. Answers to these questions give a clue as to why yields at Maloco are low and why the agricultural practices are the same now as they were a generation ago.

Only one farmer admitted using any sort of fertilizer. This one farmer applied ammonium sulphate in the recommended amount to his five hectares, but his program of fertilization was incomplete in that he applied no super phosphate or muriate of potash, also recommended. Perhaps significantly this man reported an average yield of 35 canvans per hectare, well above the barrio average. Other farmers reported that they used no commercial fertilizer whatever and, more than that, did not even make use of carabao dung which is an excellent natural fertilizer for the local soils. When asked about the dung the farmers were all of the opinion that it was too much work to collect the deposits and distribute them on the fields. A common answer was, "It is hard work and there are many other things to do." In actual fact, the best time to collect and distribute this material is during the dry season and my observations of the farmers in Maloco during two weeks of the dry season indicated that they had little to do other than playing volley ball, training cocks and playing dama and inispic at the plaza.

Not one farmer in Maloco was practicing the Masagana system of rice cultivation. Seed roots were undoubtedly destroyed as they were pulled

from the seed beds, too many stalks were planted together, the plants were not in even rows, little if any weeding was done and harvesting was as wasteful and primitive as any that I have seen anywhere. Harvesting was done by large groups of children and adults using a tiny blade held between the first and second fingers; one stalk was cut at a time and there was a great deal of handling of the harvested stalks. It has been estimated that on the average of about 10 percent of the entire rice crop is lost through inefficient harvesting methods, especially by excessive handling of the stalks. If that is true, then harvesting must waste more than this amount in Maloco.

When asked about the Masagana system, the farmers admitted that they had heard about it from the agricultural agent, but they did not believe that the system could work in Maloco. "After all, he has only told us about it; he has never shown us how to do it. The system may work in Luzon but conditions here are different." Farming practices remain primitive and yields extremely low.

The avowed policy of the present administration is to strengthen the barrio farmer and to raise his level of living. To date little has been accomplished at Maloco. Perhaps if the government could see its way clear to investing more heavily in agricultural extension work the situation could be improved.

Many of the answers I heard in Maloco led me to believe that if the farmers could actually see better methods of farming demonstrated and proven effective in their own area these men of the soil would be only too glad to change their methods. I believe that farmers in the Philippines are more receptive to new ideas and progressive methods than are the farmers in other parts of Southeast Asia. However, they must be shown and this demonstration can best be done through large scale agricultural extension work similar to that which was done in India under her first Five Year Plan.

What do the farmers in Maloco hope to achieve in the future and and how would extra income be spent if it were available? These interview questions will become more important once agricultural development begins in earnest. Most of the interviewees stated that if they had 100 extra to spend they would buy rice or clothing for the familiy. In several cases the money would be put into further education for the children. Two families wanted to buy radios and one farmer said, "If we had 100 extra right now we would go to Manila to visit relatives and go to a first class air conditioned movie house."

In answer to the question, "What should the government do to help farmers in this area?", almost all farmers mentioned the building of an irrigation system. Others thought that the government should do the following: 1. provide free fertilizer, 2. provide free insect sprays to cut down the loss of grain to pests, 3. provide banks which could loan money to the farmers at a low rate of interest, 4. put up better markets, and help support the price of palay, and 5, improve roads in the area so that palay could be moved easily into the market.

The question, What kind of a job do you want your children to have?", brought out very clearly that the farmers of Maloco hope their children will be able to do some job, other than farming. Of the forty families questioned only four said that their sons should become farmers. Eight families hope to have their children work in government offices, five look

toward the engineering field, four aim at school teaching, and most of the others want any kind of job, even laboring, which will provide a steady income. One farmer expressed his views thus: "I'll prefer them to be doctors and nurses so that they can be of great help to the rural farmers."

The farmers of Maloco want to improve their lot in life; they aim toward higher levels of living, but they do not know how to achieve this. Oral advice from visiting agriculturists obviously has not helped in the past. I believe the farmers would be receptive to new ideas if they could actually see new methods of production being used in their own area under conditions similar to those in Maloco. Right now their farms provide such a marginal existence that they dare not try new methods for they are afraid they would fail and one year of failure would mean total ruin.

THE CORN RITUAL IN LEYTE AND SAMAR

By The Rev. Fr. RICHARD ARENS, SVD

For certain sections of the population in Leyte and Samar corn mixed with rice has become the primary part of the diet. The provinces of Levte and Samar due to the evenly distributed rainfall throughout the year have become high ranking in the production of corn. In the whole Philippines in 1949-50: 853,212 hectares were planted with corn; the production was 10,847.029 cavans.¹ Leyte planted in 1949-50: 56.632 hectares with corn, with a yield of 472,978.6 cavans of corn. In the same period, 1949-50, Leyte planted 90,367.5 hectares with rice and yielded a production of 2,503,366.8 cavans.² Rice is still the main food item for the Leyteño; corn follows second.

In the same period 1949-50, Samar planted: 3,612 hectares with corn yielding 50,867 cavans; 55,601 hectares with rice, yielding 165,475.8 cavans.³

Since corn is the second biggest crop for the two provinces, a corn ritual has developed which is similar to the rice ritual in its main characteristics, although simpler in form; its symbolism is different due to the peculiar qualities of the corn.

Securing the seeds:—During the harvest time of the preceding season the farmer selects the stalks for seeds. Before he does this, the farmer of Dulag⁴ prays one Our Father, Hail Mary, and the Credo; then he proceeds gathering the stalks without saying a word. He takes the stalks home for drying and places them in a secure and safe place, usually close to the stove. A few days before planting, the farmer separates the grains from the cob and soaks the grains in fresh water until they become soft and ready for planting. O

Planting ceremony:—In the evening before planting the farmer of Dulag gathers his helpers for a celebration. They proceed to the field

¹ Cavan Philippine measurement of 75 liters.

² Office of the Provincial Agriculturist, Tacloban City.

³ Office of the Provincial Agriculturist, Catbalogan, Samar.

⁴ Dulag: Town in Eastern Leyte. ⁵ Practice in Gamay (Samar).

⁶ Ibid.